

# Newsline

International Union of Food Science and Technology Newsletter

IUFoST

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## **FOOD PROFESSIONALISM**

**By Prof J Ralph Blanchfield, MBE  
Member, IUFoST Governing Council**

## **INTRODUCTION**

Virtually all readers of Newsline are members of IUFoST Adhering Bodies (ABs) i.e. bodies representing the member countries. In most cases, the national food science society represents the country. In a few member countries, the ABs are the national Academies of Science (which cover all the sciences, not just food science).

In a few more, the ABs are national committees composed of representatives of several bodies in that country (as required by the IUFoST Constitution). Those national committees may include representatives of a mixture of professional bodies (including those concerned with contributory disciplines), learned societies and bodies concerned with specific sectors of food technology.



## **WHY WOULD IUFoST AND ITS ABs CONCERN THEMSELVES WITH FOOD PROFESSIONALISM?**

You, dear reader, may well be an experienced food scientist or technologist. You regard yourself as competent in your job, you are confident that you know how to behave professionally in any situation that may arise. But how about the young person thinking about entering a food science course? How about a student on such a course? How about someone who has graduated and is new to the world of work? How about the lay public, many of whom have no idea of what scientists do or how they approach their work, and some of whom regard scientists with suspicion?

At the 8th World Congress of Food Science & Technology (Toronto, 1991) the IUFoST General Assembly adopted "Guidelines on Professional Behaviour". Such guidelines can only have any force when addressed to individuals and IUFoST had (and has) no individual members. The Guidelines were intended as a model structure that could be used or adapted by those adhering bodies without a Code of Professional Conduct, in order to encourage and help them to develop one of their own. The Guidelines may be found at <http://www.iufost.org/AboutIUFoST.html>

In the period that followed, the IUFoST Constitution Committee considered it incongruous that nowhere in the IUFoST Constitution was there any reference to professionalism. Accordingly, at the IUFoST General Assembly during the 9th World Congress (Budapest, 1995) the Constitution Committee proposed, and the General Assembly adopted, a new addition to the Purposes section of IUFoST's Constitution:

*"To encourage professionalism and professional organisation among food scientists and technologists".*

**WHAT DO WE MEAN BY FOOD PROFESSIONALISM?**

The terms “profession” and “professional” are often bandied about, but what do they signify – and importantly, what to they signify to IUFOST and its adhering bodies?

For us, we start from the recognition that food science and technology

- is not only a subject
- is not only an occupation
- it is also a profession, comparable to the medical profession or those of the long-established single-discipline sciences (although much younger).

George Bernard Shaw wrote “All professions are conspiracies against the laity” (The Doctor’s Dilemma, 1906). Bearing in mind that he had a puckish sense of humour and that in another Shaw play (Pygmalion, 1912) he had his dustman character referring to “my profession”, perhaps we need not take GBS too seriously on the subject of professions. However, if we reject that concept, how do we categorize “profession”?

A profession — is based on a recognised body of learning, and accepts and fulfils obligations to do ALL of the following:

- serve the public interest;
- advance and extend the knowledge base of its subject;
- set and operate standards of integrity through an ethical Code of Professional Conduct;
- set and operate standards of competence;
- assist the career development of, and provide services to the practitioners;
- concern itself with further training and updating of practitioners;
- concern itself with attracting and training new entrants.

A professional body is an organization established by a profession to pursue those objectives and act as the authoritative voice of the profession to government, to industry, to other professions and to the general public. Professional bodies should therefore display the following combination of characteristics, (not just some of them but all of them):

- Independent, not-for-profit, self-governing, democratic;
- entry is based on qualifications and experience;
- members are elected in their personal capacity, not representing employers;
- members adhere to an ethical Code of Professional Conduct;
- responsible to the public, and to the integrity of the food supply;
- responsible to advance knowledge of the subject;
- responsible to assist the career development of practitioners;
- responsible to attract new entrants to the profession;
- collaborates in the public interest with government, academia, consumer bodies and industry, but retaining its complete independence.

**SERVING THE PUBLIC INTEREST**

The paramount professional responsibility is to the general public and as a crucial part of that, to the quantity, quality, safety and integrity of the food supply. For that purpose it is essential for a professional body to collaborate in the public interest with government, with academia, with consumer bodies and with industry but fully retaining its independence and provided that collaboration can be pursued without compromising professional integrity or the primary duty to the safety of the food supply and to the ethics of professional conduct.

The latter point also raises the question of the role of a professional body in relation to the food industry of its country. To take my own UK professional body, IFST, as an example, it needs to offer something of value to UK food companies in order to gain/maintain goodwill in supporting the active participation of their scientists and technologists as volunteers in IFST’s work and affairs. It is right and proper, and only to be expected, that IFST would therefore want to be, and be seen to be, through IFST members in the UK food industry, equipping them and thereby their companies, with the best of up-to-date food science and technology. But if this extends beyond, to behaving as a voice of the UK industry or to the general promotion of the competitive commercial global interests of the UK industry, these would go beyond the proper role of a professional food science body. The same goes, of course, for any other national professional bodies in relation to their countries’ food industries.

Finally under this heading, all adhering bodies to IUFOST, whether or not they are already professional bodies, have a responsibility to support IUFOST initiatives (Newline, 55, July/August 2003, pp. 6,9) to help alleviate food insecurity of the 840 million people (200 million of them children), mostly in developing countries, who suffer daily hunger, with 24,000 deaths a day from malnutrition-related diseases. The causes are multi-factorial, and cannot be cured by food science and technology alone, but cannot be cured without food science and technology.

**ADVANCING AND EXTENDING THE KNOWLEDGE BASE OF ITS SUBJECT**

This responsibility and activity, involving both the promotion of research and the communication of knowledge, reveals that the professional body must simultaneously act as a learned society.

**SETTING AND OPERATING STANDARDS OF INTEGRITY**

This is done by establishing as a public document an ethical Code of Professional Conduct to which every member must undertake to adhere and to which applicants for membership are required to subscribe before being elected. For such a Code to be effectively enforceable, alongside it there needs to be a disciplinary procedure (which, in the last resort for very serious offences may involve removal from membership) and an appeals procedure. However, a Code is primarily to help and guide members in any situations they may encounter. I have sometimes been asked, in relation to the IFST’s Code of Professional Conduct [www.](http://www.)

ifst.org/code.htm “Does it really work? How many disciplinary cases have you actually had?” My reply is that in the 29 years since the Code was introduced, only four alleged infringements have been brought to our attention. Two proved to be unfounded, the other two were valid and would have merited expulsion but the persons concerned saw the probable outcome and resigned. However, the effectiveness of the Code in guiding members is not measured by how many disciplinary cases, but by how few there are.

A secondary but extremely important purpose of having a Code – and the reason for it being a public document – is that it makes the “outside world” aware and understanding of the ethical principles on which the professional body is based and to which its members commit themselves to adhere.

**SETTING AND OPERATING STANDARDS OF COMPETENCE**

This involves establishing criteria for entry into grades of professional membership. The criteria should include combinations of academic qualifications (which may be in food science, food technology or one of the contributory disciplines) and a minimum period of appropriate experience. The latter involves not just the passage of time. For any experience to qualify as ‘appropriate’, the experience must be essentially related to food science or food technology and the nature of the post and its duties must be such as to involve a significant (but not necessarily predominant) element of responsibility and/or independent initiative. The evidence offered by an applicant, including references from people who have first hand knowledge of the applicant’s experience, should be thoroughly and strictly reviewed. Gaining professional membership should be seen as worth striving for and as a demonstration that individuals have “earned their spurs” as professionals.

**CAREER DEVELOPMENT OF THE PRACTITIONERS**

This does NOT deal with education courses by which individuals gain academic qualifications in food science or food technology but with what happens thereafter. The new academically qualified person entering the food workplace cannot yet be considered a food professional. That status is gained only through experience-based additional knowledge and experience-based wisdom to apply knowledge. Career development starts with a new graduate, maybe in food science or food technology or maybe in one of the contributory disciplines (for many scientists and technologists still enter the food field by those routes), and deals with how that “raw material” becomes “processed” – by the efforts of the individual, guided and facilitated by the professional body – into a food professional, both in terms of assessed post-qualification training and experience, to the point of being considered (and in some countries, recognized by the professional body) as such, and in terms of formal or informal schemes of continuing professional development (CPD) thereafter – for a professional has to go on learning and developing throughout life. Science does not stand still – and food science, being a relatively young multi-disciplinary subject, because of that fact develops all the faster. Knowledge is the indispensable working “tool”

of our profession. As working individuals we know that our knowledge can rapidly become out-of-date unless we are continually updating it. More than that, however, as professionals we need not only to keep up-to-date but also to be able to demonstrate that we are doing so. That is why in many professions, formal schemes of continuing professional development (CPD) have been or are being implemented.

It is not only a matter of keeping up-to-date in the particular area of one’s present or past specialisation. The attainment of transferable skills as part of one’s career development, or in the event of unforeseen circumstances, may take one into previously unvisited areas.

**ATTRACTING AND TRAINING NEW ENTRANTS**

Attracting new entrants concerns us all because it is not only about filling places in university food science department courses – it is about nothing less than the survival and future of our profession. Moreover it is not only about numbers of entrants but quality of entrants attracted into food science and food technology courses (in competition with other science – or even non-science – courses). It is also about attracting those training in the individual disciplines that contribute to food science, to practise their discipline in the food field.

**NOT JUST THE “NUTS AND BOLTS” OF FOOD SCIENCE**

Food science and technology courses should not merely involve teaching/learning the “nuts and bolts” of food science. Academics, and also senior members of the profession acting as mentors to students, have a responsibility to recognize that they also need to inculcate professionalism and professional ethics and to encourage joining – and better still, playing an active part in – the professional institute where one exists. Where one does not exist, the more far-sighted may try to get together with fellow professionals and seek to create their own “home-grown” professional body. Indeed while professional bodies such as IFT and IFST may – and do – welcome these individuals as overseas members, both of these well-established professional bodies have a professional duty to encourage and help the formation of such “home-grown” professional institutes.

A crucial part of being a food science/technology professional (and much of the personal satisfaction and joy) is that of being a volunteer and networking with others.

In 1996, following a campaign led by the IUFOST President (1991-95) Ted Hood, food science and technology took an enormous step forward in securing full membership for IUFOST in the International Council for Science Unions (ICSU) thereby gaining recognition by the other (and much longer established) international science unions that food science is a discipline in its own right. By continuing to pursue its purpose “To encourage professionalism and professional organisation among food scientists and technologists” IUFOST is laying the foundations for the wider recognition – by the world – that food science/technology is a profession in its own right, thereby benefiting every one of us.

*Editor’s note: See IUFOST website at <http://www.iufost.org/databases> for details of how you can contribute to the FAO/IUFOST global database.*

## PROFILE: DR AUBREY PARSONS

Member, IUFOST Governing Council

My working career began as a Production Chemist at Bristol Laboratories, followed by Bush Boone Allen as Technical Manager. The last 28 years have been spent as R & D Director at Haarmann & Reimer. The highlights have been the numerous opportunities to become involved in a variety of flavour – food research programmes. I have also lectured for the past 41 years at various local Universities and Technikons and continue to do this interesting, satisfying and challenging task. I have also been invited to lecture at many overseas academic Institutes, which includes India and China, and this work has been stimulating and rewarding.

A few of the milestones that have meant a great deal to me include being pushed, prodded and threatened by my first boss namely, Mr E Coch who demanded that I study further. He remains an excellent friend still today and I thank him for his forceful and important attitude, which I did not appreciate at the time. Believe it or not, I played 1<sup>st</sup> Division Soccer and Cricket in Johannesburg and hence sport took priority to food Chemistry. (A rather poor decision on my part).

I have been a Member of IFT since 1969 and a Member of IFSL since 1972. I was elected the first fellow in South Africa of the UK Flavour Society in 1971 (indeed a great honour) and I am still involved today.

My involvement with IUFOST requires turning the clock back to meetings in Spain and Ireland. I enjoyed those conferences, which were headed by giants like

Professors van Sydow, Hulse, Marovatsanga, Fennema and Ted Hood just to mention a few. There are many other special scientists and please accept my apologies for not listing them all. These mentioned above are some of the pioneers who were responsible for our solid foundation today and I salute them all.

It is now up to the present Governing Council, of which I am proud to be a member, to ensure the progress and sound future of IUFOST as it serves the global Food Industry.

I have attended numerous Post Graduate Study Programmes and served four Terms as SAAFOST President. In addition I have been President of the Cosmetic Reserve in South Africa. I serve on 5 Boards related to Advisory Directives and was awarded the TWR Rectors Medal for Scientific Services to South Africa in 1989 and the Alumni recipient in 2003.

At present I am involved in research programmes involving aromatic indigenous botanics that have applications in the food, pharmaceutical and skin care industries.

I have been blessed with good health and the opportunity to meet and work with many unique friends and Scientists and for this I remain very grateful. In November 2001 I was awarded an Honorary Doctorate by the Tswane University of Technology. This was a wonderful reward, for which I thank Professors Ncgobo, Marais and Anelich.

Now back to the bench, those botanics and their isolates and essential oils are waiting for me.



## ADHERING BODY NEWS

### KENYA

By Oiyee Shadrack,  
KUFoST Secretary

coupled with introduction of exotic foods and modern food-based ideologies has and is resulting in inevitable decline in use of traditional foods and utilization of food-based indigenous knowledge. Further, despite the challenging gastronomic and nutritional needs requiring intensified use of the food-based indigenous knowledge, very minimal basics of this knowledge has been passed on effectively from their predecessors to the current generation. There is also no practical evidence that the subsequent generations will be exposed to the knowledge and traditional foods, which *inter alia*, formed the basis of survival and longevity of the African people. There is thus a genuine and a justified need to redress the situation using up-to-date strategies. Currently there is increased preference for refined processed foods and exotic plant foods, all in the good names of agronomic superiority, environmental suitability, availability, accessibility and convenience, among many other factors.

### PROMOTION OF TRADITIONAL FOODS IN KENYA

Rapid urbaniza-  
tion in Africa

In the advent of ever increasing numbers of individuals who are immune compromised, those who are undernourished and over-nourished, resulting in reduced life expectancy, the need to promote good eating habits has resurfaced. One feasible strategy that has taken center stage in Kenya is the research and promotion of farming and utilization of locally available exotic and neglected native foods. This calls for retrospective examination of long-ago utilized edible and nutritious materials that were and are locally available.

One group of this nature is the African Leafy Vegetables (ALVs). Research has found that Kenya alone has more than 210 species of ALVs that have not been fully exploited. Only about 10 species of these traditional vegetables are found in the market. The underutilized crops include the vegetables such as amaranths, cowpeas (leaves), African nightshade, crotalaria, Ethiopian kale, water spinach, jute and Cleome gynandra-cat whisker. These vegetables have been found to be rich especially in micronutrients of public health importance; vitamin A, iodine, iron and zinc. Other micronutrients present in these vegetables include vitamin B complex, vitamin C and E.

The International Plant Genetic Resources Institute (IPGRI) is currently implementing a strategy to combat the decline in the distribution and use of ALVs genetic resources. The project goal is to improve the food security and nutritional status and livelihood of vulnerable groups in the Sub-Saharan Africa. The project partners are African scientists, development organizations and technologists from South Africa, Cameroon, Kenya, Senegal and Zambia. In Kenya, serious activities initiated by IPGRI and local partners have already commenced and some are in the pipeline for the very near future. KUFOST members are participants in the project through their respective partner organizations. These activities revolve around among others, nutritional surveys, promotion of seed production, agronomic aspects, enterprise development, product development and promotion of consumption of ALVs. Promotion aspect of the initiative is key and recently a number of activities have been going on in this direction.

This year, these activities culminated to the much publicised 'African Foods Nutrition and Health Week', held between June 26<sup>th</sup> and July 3<sup>rd</sup>. The National Museums of Kenya, IPGRI and partners organized this forum to promote the dietary diversification and good nutrition in Kenya. The forum started with an awareness walk and included exhibitions by African community restaurants, manufacturers and institutions within the theme of healthy eating. Lectures, traditional performances and food tasting also characterized the forum. The theme for this year was 'Dietary Diversity for Quality Health'. It aimed at promoting variety in Kenyan diets as a means of achieving better nutrition and health. Worth mentioning is that two specific days were dedicated to nutrition and youth, family and HIV/AIDS and for a symposium for professionals and policy makers.

The case for African Leafy Vegetables is being made explicit and very early indications show increased consumption as evident by demand and high sales for them in the urban supermarkets. Much more effort is however needed and IPGRI and local partners are geared for major campaigns in this direction. The ultimate aim is to encourage dietary diversification through incorporation of African traditional food plants in existing diets for a healthy nation. □

## CANADA

By Prof Rickey Yada  
CIFST President and 2004  
Conference Co-Chair

The 2004 conference held May 16-19<sup>th</sup> at the University of Guelph, Ontario, Canada, marked an historic event—the first-ever joint meeting of the Canadian Institute of Food Science and Technology and the Food Research Network of Agriculture and Agri-Food Canada.

The conference, which attracted approximately 400 registrants from across North America as well as abroad, began with a well-attended Natural Health Products Workshop, lead by Carol Culhane, International Food Focus Ltd and

Heather Boon, Faculty of Pharmacy, University of Toronto. Workshop participants not only learned about the current status of regulations, but also were involved in group case-study activities.

The Sunday night Opening Reception allowed for attendees to renew acquaintances and establish new ones. Greetings from the conference co-chairs, as well as Dr. Bruce Archibald, Assistant Deputy Minister, AAFC, were made and self-described food activist, gastronomer and agrologist Anita Stewart, who organized many of the meals, spoke about the distinct Ontario focus of the food for the conference.

The exciting and diverse technical program included approximately 180 presentations made by Canadian and international researchers and consisted of 14 different oral sessions along with a poster session with seven different categories. This year's conference also marked the return of the Student Challenge, where teams comprising of undergraduate and/or graduate food science/nutrition students from Canadian universities competed in a "Reach for the Top" format for the Marvin A. Tung Trophy. Competing teams included: University of British Columbia, University of Manitoba, University of Guelph, Ryerson University, McGill University and Dalhousie University.

Every round of the competition was very close. The University of Manitoba and Ryerson University teams participated in the final round, with Ryerson University emerging as the winner. Congratulations to the team from Ryerson University, consisting of Angie Caruso, Linda Gismondi, Brenda Hartman Craven and Natalie Walsh.

The conference also included a sold-out "table top" exhibit where more than 40 organizations were able to showcase the latest in technology or advertise their services. The CIFST Annual General Meeting was held during the Tuesday luncheon and included the presentation of the financial statements, an announcement of the Board of Directors for 2004-2005 and special recognition for directors who have completed their terms, including Toronto Section Chair Paul Paterson. At the conclusion of the AGM, Susan Lutz transferred the Presidency to me, and I in turn presented Susan with the Past President's pin.

Tuesday night finished with the CIFST Awards Dinner, featuring a wonderful meal of local products—Ontario beef and pork, Yukon Gold potatoes and Ontario-bred white beans—and concluding with the presentation of the following awards:

- Best Oral Presentation - David Balke, Department of Chemical Engineering, University of Toronto
- Best Poster Presentation - Gerjtan Blom, Food Research and Development Centre, AAFC, Saint-Hyacinthe, Quebec
- President's Award - Alphonsus Utioh, Food Development Centre, Morden, Manitoba
- William. J. Eva Award - Dr. Digvar Jayas, University of Manitoba

"THE CASE FOR AFRICAN  
LEAFY VEGETABLES IS  
BEING MADE EXPLICIT..."

- CIFST Emeritus - Elizabeth Larmond Elliot, Manitoba Section
- Dr. David Bailey, Director General, Food Safety and Quality, AAFC, presented Dr. Gordon Timbers with the Long Service Award for his 38 years of dedicated service to AAFC. Dr. Timbers is a long-time member of CIFST and a Past-President.
- Susan Lutz presented Robin (our former Executive Director) and Flip Flockton with an Inuit carving and acknowledged their yeoman service to CIFST over the past years.

Participants had a chance to unwind during two post-conference activities: a tour of various Guelph-based breweries (Sleemans and Wellington County) and a winery (Cox Creek) or a round of golf at Springfield Golf Club. By all accounts, participants had a wonderful time.

The success of a conference can be evaluated using various metrics such as the number of attendees, revenue generated, etc.; however, the best index is testimonials. Below are some comments that were heard over the course of the conference:

"It's great that there is an annual conference again"

"Combining the CIFST meeting with the Food Network meeting of AAFC was a great idea. It allowed for more speakers with a greater diversity of subject matter, and more people to interact with."

"It was great to see the students being involved. It's nice to have the Student Challenge back again."

This uniquely styled conference would never have happened without a well-oiled machine—otherwise known as the organizing committee and the many volunteers. The organizing committee, which was comprised of both CIFST members (from both the Toronto and Guelph Sections) and AAFC personnel, demonstrated all the qualities one looks for in a committee: enthusiasm, dedication, complementary skills, synergy and humour. Both Puni Piyasena (conference co-chair from AAFC) and I were honoured to have worked with such a fine group of individuals. They included: Judy Chow, Milena Corredig, Dérick Rousseau, Brad McKay, Zeina Kassaify, Liz Parker, Janice Baker, Carol Ann Burrell, Christine Gillies, Kim Edwards, Mike Bryan, and Andrea Labaj. We would also like to thank all of the volunteers that helped out with the conference. Many thanks to all. When one looks in the dictionary under "success", sub-section "conference", we are sure that your pictures are there. □

## SOUTH AFRICA

Compilation by Dr Aubrey Parsons and Dr Bernard Cole

South Africa's first official food-based dietary guidelines (FBDGs) are to be launched by SA's

Department of Health on World Food Day on 16 October, following a consumer awareness campaign that starts in June.

Dr Penny Love, on whose research the guidelines are based, says an analysis of SA dietary intakes reveals that:

- \* For all South Africans, fat intakes, especially saturated fats, are increasing (they average 35-39% of total energy), with a corresponding decrease in carbohydrate and fibre intakes.
- \* Calcium and iron intakes are low.
- \* Folate and vitamin A intakes range from low to marginal.
- \* Sodium intakes are high.
- \* For all participants, taste preferences could have led to the exclusion of fruits and vegetables, but would have included fats and salt.

In a drive to create demand in the **sugar sector**, Selati has repackaged the commodity and added a few innovative twists.

The variants it has produced are:

- Plantation Light, an unrefined sugar that is "lightly washed" to remove "overt" molasses. Packaged in shakers and clear plastic containers.
- Muscovado, with nutty flavour, packaged in clear plastic containers.
- Occasions – flavoured sugar crystals in glass bottles.

Golden delicious apples from nine SA fruit exporting companies hit the shelves of supermarkets in Britain in May, as part of an exercise to experiment with the best SA has to offer, according to Proudly South African.

This initiative is part of the **Fresh Produce Export Forum** (FPEF), which is also a member of Proudly South African, and "came as a result of the need to mutually brand the products and to present their service under one umbrella."

SAAFoST recently held an important Symposium titled "**HIV/AIDS & Nutrition; The Role of the Food Industry**". Herewith some of the pertinent data shared.

Over the past 10 years most people have become accustomed to talking about HIV/AIDS and its impact on industry, family life, society and the individual. Despite the public and political intricacies surrounding HIV/AIDS, the management of the disease was straightforward and relatively well understood. The introduction of anti-retroviral therapy to the public sector brings along a new era of both hope and fear of failure.

HIV infects approximately 700,000 children each year, and at the end of 2003 there were about 2,500,000 children (0-15 years) living with HIV. In South Africa (2004), this equates to about 200-250 children being infected each day and about 250,000 suffering from the disease.

Transmission of HIV from the infected mother to the child occurs at one of three time points: during the development of the fetus in utero, during the birthing process (intra-partum) or following birth i.e. postnatal. Postnatal infection is usually the result of breastfeeding. The relative contribution of these three events depends on the risk exposure associated with each.

"THE NUTRITIONAL STATUS OF AN INDIVIDUAL IS KNOWN TO PLAY AN IMPORTANT ROLE IN DECELERATING THE PROGRESSION OF HIV TO AIDS."

The most important determinant of whether infection will happen at any of these intervals is the mother's own disease status i.e. how far she has progressed from asymptomatic HIV to full blown AIDS.

The relationship between human immunodeficiency virus (HIV) infection, nutritional status and immune function has been described as a complex triad. It is well-recognized that the clinical outcomes of diseases such as HIV-infection and tuberculosis are worse when the host is malnourished.

The nutritional status of an individual is known to play an important role in decelerating the progression of HIV to AIDS, improving quality of life, and decreasing the prevalence and severity of the infectious complications of HIV/AIDS. The need for low cost interventions to reduce morbidity and mortality related to HIV infection in developing countries is an urgent one.

One of the hallmarks of human immunodeficiency virus (HIV) infection is wasting, which is recognized as a clinical marker of the acquired immunodeficiency syndrome (Aids). In longitudinal studies of HIV infected subjects severe loss of body weight has been shown to be a powerful predictor of mortality. Conversely, weight gain is regarded as a marker of good prognosis. Nutritional advice and monitoring are a crucial part of patient management in HIV infection.

Leading and major local Governmental decision makers are advising to use certain food combinations to treat HIV related symptoms and to boost their immunity. The most commonly "prescribed or recommended" foods are garlic, virgin olive oil, the African potato and onions.

Sadly there remains little/no convincing or consistent scientific evidence that any of these foods, singly or in combination, alter the course of disease.

What does the future hold? There are several research studies presently evaluating the efficacy of different anti-retroviral regimes given either to the mother and/or infant who is breastfeeding (results in another 12-18 months). Only when the entire child population is protected by optimal feeding practices and support thereof, can success be claimed.

South Africa's food and beverage industry is a strongly competitive sector producing high quality commodity and niche products for local and international markets. Food production is strongly linked to the agricultural sector and SA is one of the six countries in the world considered to be a net exporter. The food service industry sells 20,4m tons of food worth R159bn. This includes exports as well as fruit and vegetables and products used for food processing.

Food production is the largest manufacturing industry.

Genetically (GM) modified foods continue to be a cause of debate in the industry. According to a study by the Foundation for Education Science and Technology, 40% of SA consumers support the idea of using biotechnology to improve the taste and nutritional value of food, although the same survey shows that consumers are, generally, poorly educated about GM foods.

SA is now a full member of Codex Alimentarius, and the Department of Health works closely with industry members through the Food Legislation Advisory Group (FLAG).

The low rainfall has had a negative impact on food production resulting in the need to import certain products, especially since SA's northern neighbours are experiencing food shortages.

Call it the candy-lite craze. Long viewed as a slightly naughty self-indulgence, candy is getting a makeover as companies try to concoct sweets that are a little healthier. "There's no doubt that the buzz in the industry right now is really health-conscious candy," as well as many other lite products and the major reason for this development is that Obesity (now labeled - Globesity) has arrived in South Africa.

However snacking as well as fast foods are a huge business and continue to grow, (as do the bellies)!

One of the better snacking pastime local products is "BILTONG". According to Voortrekker history, the making of biltong can be traced back to the Great Trek in the 1800s. The trekkers had to find a way to preserve meat during their trek inland and, with no refrigeration, drying out the meat was the only way. The word "biltong" is derived from Dutch meaning "dry meat". Biltong was initially not eaten raw as is the tradition today. It was soaked in water and then cooked. The Voortrekkers were forced to eat the biltong in its original state during the rainy seasons and on exploring trips. The taste was then acquired for raw biltong as we know it today. But there are negatives.

Fast Foods, city living and reduced breast-feeding have made South African children more prone to allergies. Sensitivity in rural children jumped from 3% 20 years ago to 36% today, while city kids have a 50% chance of getting an allergy. Children with one allergic parent have a 25% chance of being allergic. This doubles if both parents are allergy sufferers. The top six allergens affecting children were house dust mites, grass pollens, cat hair, fungal spores, peanuts and eggs.

The South African food industry is still facing many unnecessary problems relating to MSG and this is due to a rather aggressive anti-lobby group, but we know that scientific sanity will prevail. □

*References: F&B Reporter; SAAFoST HIV Symposium; Dr H Steinman; Health % Hygiene May 2004; Consumer Good Council*

## INDIA

By GA Krishna,  
CFTRI Correspondent

**HIGH PROTEIN  
LOW FAT READY-  
TO-EAT CRISP  
PULSE FLAKES  
FROM CFTRI,  
MYSORE**

Pulse or legumes are useful as an inexpensive source of proteins, dietary fiber and minerals. CFTRI has developed a process for preparation of High Protein Low Fat Crisp Flakes, in which the shape of the pulse flake is retained. The product can be prepared using whole grain of dehusked split pulse. The advantages of CFTRI's process are:

## INTERNATIONAL EVENTS OF INTEREST

### 2004

**SEPTEMBER 7-10** XIX Brazilian Congress of Food Science and Technology, Recife, Brazil. Contact: Dr. Nonete Barbosa Guerra, Scientific Programme Chair, E-mail: [nguerra@nutricao.ufpe.br](mailto:nguerra@nutricao.ufpe.br)

**SEPTEMBER 12-15** XV International Symposium on Problems of Listeriosis, Uppsala, Sweden. Contact: Prof. Wilhelm Tham, Swedish University of Agricultural Sciences, PO Box 7009, SE-750 07 Uppsala, Sweden, Tel: + 46 18 67 23 94, Fax: + 46 18 67 33 34, E-mail: [wilhelm.tham@lmhyg.slu.se](mailto:wilhelm.tham@lmhyg.slu.se), Website: [www-conference.slu.se/isopol/](http://www-conference.slu.se/isopol/)

**SEPTEMBER 12-16** 19th International ICFMA Symposium, Food Micro 2004 'New Tools for Improvement of Microbial Food Safety and Quality Biotechnology and Molecular Biology Approaches, Portoroz, Slovenia. Contact: Ms. Natalija Bah Ead, Congress Secretariat, Presernova 10, SI-1000 Ljubljana, Slovenia, Tel: + 386 124 17134, Fax: + 386 124 172 96, E-mail: [nataalkja.bah@cd-cc.si](mailto:nataalkja.bah@cd-cc.si), Website: [www.foodmicro2004.org](http://www.foodmicro2004.org)

**SEPTEMBER 14-15** 2nd Innovative Foods Centre Conference, Sydney Australia. Contact: Kristine Manser, Fax: +61 3 9731 366, E-mail: [Kristine.manser@foodscience.afisc.csiro.au](mailto:Kristine.manser@foodscience.afisc.csiro.au) Website: [www.foodscience.afisc.csiro.au/ift&amp;ific](http://www.foodscience.afisc.csiro.au/ift&amp;ific)

**SEPTEMBER 16-17** IFT Nonthermal processing Division/ EFFoST nonthermal Food Processing Technologies Workshop, Sydney, Australia. Contact: Kristine Manser, Fax: +61 3 9731 366, E-mail: [Kristine.manser@foodscience.afisc.csiro.au](mailto:Kristine.manser@foodscience.afisc.csiro.au) Website: [www.foodscience.afisc.csiro.au/ift&amp;ific](http://www.foodscience.afisc.csiro.au/ift&amp;ific)

**SEPTEMBER 25-30** 9th ISOPOW Meeting, Mar del Plata, Argentina. Contact: Dr. Pilar Buera, Departamento de Industrias, Facultad de Ciencias Exactas y Naturales, 1428 Buenos Aires, Argentina, Fax: + 54 11 4576 3366, E-mail: [pilar@di.fcen.uba.ar](mailto:pilar@di.fcen.uba.ar), Website: [www.isopow9.com.ar](http://www.isopow9.com.ar)

**OCTOBER 6-8** 2nd International Conference on Food Factory of the Future - Hygienic Processing, Laval, France. Contact: Nicolas Chomel, Laval Mayenne Technopole, 6, rue Lzeonard de Vinci - 53000 Laval, France Tel: +33 2 43 49 75 00, Fax: +33 2 43 49 75 76, E-mail: [chomel@laval-technopole.fr](mailto:chomel@laval-technopole.fr)

**OCTOBER 12-16** 2004 Uruguayan Congress of Food Science and Technology, XIII Latin American and Caribbean (ALACCTA) Seminar 'Foods and Health', Montevideo, Uruguay. Contact: Lucia Pereira, Eventos y Congresos ELIS, Tacuarembó 1442-710, Tel: + 598 2 4001284 / 4025504, E-mail: [Eventos@adinet.com.uy](mailto:Eventos@adinet.com.uy) or [ictadac@adinet.com.uy](mailto:ictadac@adinet.com.uy), Website: [www.multitel.com.uy](http://www.multitel.com.uy)

**OCTOBER 17-20** UW-River Falls 24th Microbiology Symposium, University of Wisconsin-River Falls, USA. Contact: Doreen Cegielski, University of Wisconsin-River Falls Animal and Food Science Department, Tel: +715-425-3704, E-mail: [foodmicro@uwrf.edu](mailto:foodmicro@uwrf.edu), Website: [www.uwrf.edu/food-science](http://www.uwrf.edu/food-science)

**OCTOBER 21-22** The First ICMSF-China Food Safety International Conference, Beijing, China. Contact: Chinese Institute of Food Science and Technology, Ms. Shao Wei, Tel: +86 10 65265374 or +86 10 65265375, Fax: +86 10 65264731, E-mail: [cifst@public.bta.net.cn](mailto:cifst@public.bta.net.cn), Website: [www.cifst.org.cn/](http://www.cifst.org.cn/) China CDC Institute of Nutrition and Food Safety, Ms. Tian Jing, E-mail: [pocket28@hotmail.com](mailto:pocket28@hotmail.com) or [aocchina@263.net](mailto:aocchina@263.net) / Food Science Australia, Dr. Jason Wan, E-mail: [Jason.wan@foodscience.afisc.csiro.au](mailto:Jason.wan@foodscience.afisc.csiro.au), Website: [www.icmsf.org](http://www.icmsf.org)

**NOVEMBER 7-10** CIFST-IFT Summit: "Growing the Chinese Food Industry in the 21st Century", Beijing, China, Contact: Chinese Institute of Food Science and Technology, Ms. Shao Wei, Tel: +86 10 65265374 or +86 10 65265375, Fax: +86 10 65264731, E-mail: [cifst@public.bta.net.cn](mailto:cifst@public.bta.net.cn), [info@ift.org](mailto:info@ift.org)

**NOVEMBER 7-10** 5th International Conference and Exhibition on Nutraceuticals and Functional Foods, San Francisco, California, USA. Contact: Prof. F. Shahidi, PO Box 10506 College Station, Texas 77842, Tel: + 1 979 846 1951, Fax: + 1 979 846 1951, E-mail: [nutra@worldnutra.com](mailto:nutra@worldnutra.com), Website: [www.worldnutra.com](http://www.worldnutra.com)

**NOVEMBER 9-11** The Fifth Rothamsted International BioMarket - BioProducts for Food, Rothamsted, Harpenden, UK. Contact: Amanda King, Tel: +44 0 1582 763133 ext, 2842/2840, Fax: +44 0 1582 760981, E-mail: [BioMarket@bbsrc.ac.uk](mailto:BioMarket@bbsrc.ac.uk), Website: [www.BioMarket.rothamsted.ac.uk](http://www.BioMarket.rothamsted.ac.uk), [www.BioProduct.info](http://www.BioProduct.info)

**NOVEMBER 24-26** International Food Science and Technology Congress, Cordoba, Argentina. Contact: Lic. Hugo H. Rabbia, Agencia Cordoba Ciencia S.E., E-mail: [hugo.rabbia@cba.gov.ar](mailto:hugo.rabbia@cba.gov.ar), Website: [www.agenciacordoba-ciencia.cba.gov.ar](http://www.agenciacordoba-ciencia.cba.gov.ar)

### 2005

**SEPTEMBER 19-23** IUNS - 18th International Congress of Nutrition 'Nutrition Safari for Innovative Solutions', Durban, South Africa. Contact: Este Vorster, Congress Chair, E-mail: [safari@puk.ac.za](mailto:safari@puk.ac.za), Website: [www.puk.ac.za/iuns](http://www.puk.ac.za/iuns)

**OCT 31-NOV 2** World Conference on Physics and Sustainable Development, Durban, South Africa. Contact: Yves Petroff, President, IUPAP, E-mail: [petroff@esrf.fr](mailto:petroff@esrf.fr), Website: [www.wcpsd.org](http://www.wcpsd.org)

### 2006

**SEPTEMBER 17-21** IUFoST 13th World Congress of Food Science and Technology, Cité des Congrès, Nantes, France. Contact: INRA, BP 71 627, 44 316 Nantes cedex 3, France, Tel: +33 6 40 67 51 45, Fax: +33 6 40 67 50 06, E-mail: [iufost@nantes.inra.fr](mailto:iufost@nantes.inra.fr)

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EVENTS IN RED ARE SPONSORED BY IUFoST.

- The process of preparation does not require any sophisticated equipment or pressure cooking for preparing cereal flakes.
- The product can be introduced as a snack food or ready-to-eat breakfast item; it is also suitable as a health food as it contains high protein and low fat.
- The process can be adopted for different types of pulses, such as Bengalgram, Redgram, Cowpea etc.

An Indian Patent has been filed for the above process.

#### **MICROBIOLOGICALLY SAFE MARINATED CHICKEN PICKLE WITH ENHANCED SHELF-LIFE - A PROCESS FROM CFTRI, MYSORE**

Pickles are generally used as adjuncts along with foods such as rice, bread, roti, chapathi etc. Preservation of chicken meat by pickling is ideal for semi-tropical and tropical countries. CFTRI has developed and standardized a process for shelf stable Chicken Pickles.

The process involves marination of chicken meat pieces, cooking marinated chicken pieces under steam followed by frying, addition of spices and other additives, conditioning and bottling. The product is microbiologically safe, sensorily acceptable and stable at room temperature for more than six months. The advantages of CFTRI's process are:

- The product can be stored at ambient temperature for more than 6 months.
- Coliforms, *S. aureus* and *Salmonella* are absent thus making the product microbiologically safe.
- The processing is feasible under commercial conditions in the existing pickle processing plants.

An Indian Patent has been filed for the above process. □

#### **SWEDEN**

By Prof Nils Bengtsson, SIK Correspondent

#### **EUROPEAN/AFRICAN RESEARCH FOR EXPORT PRODUCT DEVELOPMENT**

SIK presently participates in two separate cooperative projects, funded by the European Commission, with the objective of creating potential and economic growth in the food field in Africa.

One project, called CombiDry, concerns the development of new combined drying technologies for the development of high quality shelf-stable fruit products, suitable for foreign export. The other project, called ENVIROPAK, has the primary objective of developing and manufacturing novel, high-value edible coatings and films from indigenous crop waste to improve the shelf-life of southern Africa's fruits and nuts, in order to enhance the growth of these important export industries.

#### **COMBIDRY - NEW COMBINED DRYING METHODS FOR HIGH QUALITY FRUIT PRODUCTS**

This project involves cooperation between four African (South Africa, CSIR; University of Zambia, National Agriculture Research Organisation, Uganda; Universidade Eduardo Mondlane, Mozambique) and three European

parties (SIK, Sweden; Polytechnic University of Valencia, Spain, and University College Cork, Ireland) coordinated by Doctor Lilia Ahméd SIK. The project aims at the development of a new production system to produce high quality shelf-stable tropical fruit products. The combination of osmotic dehydration and microwave assisted air drying will make it possible to produce dried and intermediate moisture fruit products that are shelf stable and have high quality. The project aims at two type of mango, banana and pineapple products, depending on the drying conditions used (i) dried fruits that can be used as snacks or as ingredient in breakfast cereals, and (ii) intermediate moisture fruit products that can be used as ingredient in yoghurts, sauces, desserts and cakes, and therefore will be consumed in the rehydrated form. Three PhD projects are under way within the CombiDry framework.

For the experimental work, a novel batch pilot unit for microwave assisted air drying was designed and built in duplicate at SIK for parallel work in South Africa (CSIR) and at SIK. It has a flat, circular cavity, fed from below and has a particular TM-type field pattern, which gives superior evenness of heating. It is equipped with a hot air system with air flow perpendicular to the product tray. The performance of the dryer has been validated and drying experiments carried out on ripe and on green bananas. Dielectric properties have been determined for the products of interest and a mathematical model developed for combined microwave and hot air drying of banana slices.

In the osmotic work, where the African parties cooperative with a Polytechnic University of Valencia (PUV), experiments have been initiated to develop product prototypes. Work is in progress for bananas, mango, pineapple and papaya, establishing optimal processing conditions. A study is to be made also on alternative uses of spent osmotic solutions.

The project includes also the selection of the packaging materials to ensure the required shelf-life under the normal storage. The shelf-life of the products will be determined based on mathematical modelling of the kinetics of quality changes. This work has been done at University College Cork.

A market study was carried out at SIK in Sweden and at PUV in Spain, using industrial focus groups to define desirable characteristics for the selection of product prototypes. A second market study is planned at the end of the project to evaluate the chosen product prototypes in Sweden, Spain and Ireland. The overall aim is to create potential for new markets and economic growth for Africa.

Further information on the project will be available on the site [www.sik.se/combidry](http://www.sik.se/combidry)

#### **ENVIROPAK – EDIBLE FILMS AND COATINGS FROM KAFIRIN**

This project involves cooperation between three African (South Africa, CSIR and University of Pretoria; Mozambique, University Mondlane; Mauritius, University

**"A NOVEL BATCH PILOT UNIT FOR MICROWAVE ASSISTED AIR DRYING WAS DESIGNED AND BUILT IN DUPLICATE AT SIK FOR PARALLEL WORK IN SOUTH AFRICA (CSIR)..."**

of Mauritius) and three European parties (Sweden, SIK; Italy, IMCB; UK, IFR-Institute of Food Research), coordinated by Professor Mats Stading, SIK. The primary objective is to develop and manufacture novel, high-value edible coatings and films to improve the high-quality shelf-life of Southern Africa's fruits and nuts. An inexpensive, renewable raw material, sorghum bran, from the local indigenous sorghum cereal industry, will be used to extract the protein kafirin, which is water insoluble, non-allergenic and expected to give films with good gas barrier and mechanical properties, to provide excellent barrier coatings for fruits and nuts. Kafirin has the advantage of being more hydrophobic than, for example, amylose, and form films that are less sensitive to moisture and with lower vapour permeability.

Early results from the project were presented last year at a "Workshop on the Proteins of Sorghum and Millets" in Pretoria, South Africa, by Mats Stading, SIK, and M.N. Emmambux, Pretoria. In a joint article in *Chemical Technology* they report results on cereal biopolymer films and coatings, highlighting work with edible barriers on minimally processed carrots and other fruits and vegetables, as well as on the release from biopolymer coating of antimicrobial and other substances included in the polymer solution before casting. An edible coating could prolong shelf life by 3-6 days, which could be extended further by including antimicrobial substances in the coating.

In his doctorate work, for which Professor Stading was the co-supervisor, Dr Emmambux had studied the interaction between phenolic compounds and kafirin, extracted from by-products of the sorghum industry, and how these compounds can modify the functional properties of kafirin films. The high tensile stress of modified kafirin films suggests they can contribute to stronger coatings around litchi fruits to reduce micro-cracking and browning. The lower oxygen permeability of the modified film and potential antioxidant activity of the tannins suggest these films would provide good coatings to prevent rancidity in nuts.

In recent work at SIK, the release of preservatives from kafirin and other biofilm materials was studied, demonstrating rapid release into packed model foods and effective inhibition or retardation of microbial growth.

The project will be concluded with a final workshop on November 29 in Cape Town, South Africa, at which the results obtained will be disseminated and their practical applications in food packing and coating discussed.

Further information on the project will be available on the site [www.sik.se/enviropak](http://www.sik.se/enviropak) □

## URUGUAY

By MSc Gisela Kopper

**REPORT ON  
IUFoST-  
SPONSORED  
INNOVA 2004  
MAY 19, 20 & 21,  
MONTEVIDEO,  
URUGUAY**

The main objectives LATU proposed for its 1st International Symposium on Innovation and Food Development INNOVA 2004 were satisfactorily accomplished. It generated the basis of a permanent and periodic forum for discussion and analysis of food development and innovation trends to foster regional industry competitiveness.

INNOVA 2004 received direct support from prestigious institutions of Uruguay such as the Universidad de la Republica, Universidad Catolica, Instituto Nacional de Investigaciones Agropecuarias INIA and the Camara de Industrias del Uruguay CIU. It had the official sponsorship of IUFoST and was supported by food technologist associations such as ALACCTA and SUCTAL (Uruguay).

INNOVA 2004 was a non-profit event and its expenses were partially covered with the economical support of sponsors such as IUFoST, DUEY, L & G, DANONE and AVENTIS. Also, more than 20 food companies gave products and services for the coffee breaks and lunches. LATU itself supported all organizational activities with its personnel and resources.

INNOVA program was organized in three main topics - Innovational Management, Innovative Technologies and Innovation in the Industry. Round tables and conferences were given by lecturers from recognized academic institutions and research centers of Uruguay

and abroad such as: NASA Food Technology Commercial space Center, USA; National Center of Food Safety and Technology, NCFST USA; Universidade de Campinas, Brazil; Universidade de Sao Paulo, Brazil; Instituto de Tecnologia de Alimentos ITAL Brazil; Centro Nacional de Ciencia y Tecnologia de Alimentos, CITA Costa Rica; Instituto Nacional de Tecnologia Industrial INTI, Argentina; Centro de Investigacion y Desarrollo en Criotecnologia de Alimentos, Argentina; Universidad politecnica de Valencia, Spain and the Pontificia Universidad Catolica de Chile.

Strong advertising activities within Uruguay and the region were performed in all media: TV, radio, newspapers, journals, web pages, regular mail and databases of several institutions. INNOVA 2004 had 120 participants, 74% were professionals or technicians, 26% were students. With the successful experience of the 1st International Symposium on Innovation and Food Development, LATU will soon decide the dates for the next INNOVA. □

**LATU, THROUGH INNOVA 2004, HAS BUILT THE FOUNDATION FOR A PERMANENT FORUM OF DISCUSSION AND ANALYSIS OF FOOD DEVELOPMENT AND INNOVATION TRENDS, WHICH WILL FOSTER INDUSTRY COMPETITIVENESS IN URUGUAY AND THE SURROUNDING REGIONS.**

The IUFoST Scientific Information Bulletin on OBESITY, the second in the 2004 series issued by the Scientific Council, is available in pdf form from the IUFoST Website at [http://www.iufost.org/Issues/IUFoST\\_IB.04.2-Obesity-June\\_2004.pdf](http://www.iufost.org/Issues/IUFoST_IB.04.2-Obesity-June_2004.pdf). International CORE CURRICULA guidelines for Food Science and Technology are on the IUFoST Website at <http://www.iufost.org/Institute/CoreCurricula-Recommendations-2004.pdf>. Your comments are invited.

**Prof Joseph H. Hulse  
AND THE CANADA-MYSORE  
PROJECT**

The 1960 centennial celebration of Britain's first food and drug legislation gave rise to

the creation of two significant Food Science and Technology institutions: (1) IUFoST and (2) The International Food Technology Training Centre in Mysore, India.

During the centennial conference in London, Sir Norman Wright, then Deputy Director General of FAO [formerly Senior Scientific Adviser to the UK Ministry of Agriculture, Fisheries and Food], asked Joseph Hulse if he could persuade Canadians to support the newly launched FAO Freedom From Hunger Campaign (FFHC). Specifically would the Canadian FFHC raise the money to create an International Food Technology Training Centre in Mysore where men and women from Asia could be trained. An FAO survey in 1959 had discovered that nowhere in Asia was there a F S& T training facility. Joe presented the proposal to the Canadian national FFHC Committee who agreed to sponsor the project on condition that he would chair what became known as the Canada-Mysore Project.

As Director of Research and Development in Canada's largest and most vertically integrated agribusiness company, Joe was able to persuade the Presidents of the 20 largest Canadian food and agribusiness companies to form an industrial fund-raising committee. In addition, Prime Minister Lester B Pearson agreed to be Principal Honorary Patron, and all the leaders of national political parties became Honorary Patrons. The Project gained support of several prominent NGOs including Oxfam Canada, Save the Children Fund, the UN Association and the National Council of Women, plus a youth fund-raising group including many universities, high schools and the Air, Naval and Army cadets who sold ball-point pens "To write off hunger".

Joe visited FAO and India and took several hundred slides that illustrated the need for improved food preservation. These were duplicated and, with descriptive notes, used by members of the Canadian Institute of Food Science and Technology (CIFST), of which Joe was past President, to give lectures across Canada to gain financial support for the Project. Every major food company provided money for a 2-year scholarship that led to an MSc degree from the University of Mysore.

The first MSc courses attracted students from 10 Asian nations. Others provided scholarships for short-term courses. Each scholarship-provider received details of whom they were supporting and where the student was subsequently employed. Several MSc students later became directors of Asian national food science and technology R & D institutions. More than 90% of all students were eventually employed in food industries. The project raised sufficient funds for FAO to support the IFTTC during its first 8 years. Later other donors contributed, IFTTC became a campus of the UN University and now it is entirely self-supporting. Since the first students arrived in 1964, it has trained over 7000 men and women from some 48 developing nations, roughly 800 having gained MSc or PhD degrees. Virtually

every food industry in India, and industries, universities and government facilities in many other nations employ Mysore trainees. The rupee value of Indian processed foods is over 1000 times the value in 1962. The success of the IFTTC is illustrated by the fact that there are over 50 applicants for every MSc course place.

For the past several years Joe has been Visiting Professor to the IFTTC and the M S Swaminathan Research Foundation, where he lectures to graduate students on food industry management and food systems analysis, and acts as technical adviser in rural agribusiness development programmes that provide ownership of and employment for poor people, mainly women, in rural agribusiness. For example, in a large forest reserve inhabited by extremely poor tribal people, money was obtained to equip a factory to permit them to expand from kitchen to commercial scale processing of a diversity of fruits, vegetables, honey, medicinal plants and other non-timber forest products. Over 60 extracts of medicinal plants have been officially registered as Ayurvedic drugs.

In Pondicherry, poor rural women are assisted in improving their income by poultry production - eggs and broilers - for which a poultry feed factory, owned and operated by the women, will soon be built to produce feed from local materials at significantly lower cost than feed available from distant commercial sources. Every village has a computer that [a] provides instant information on demand and current market prices for local produce [b] by means of computer graphics provides illustrative training material for the village people in the processes of production and processing being developed and applied. With funds from the Commonwealth Secretariat, Joe has arranged for a group from South Africa to visit the rural development projects in India and subsequently adapt what they observe to satisfy the urgent needs of S Africa and its SADC neighbours for rural employment in small agribusiness.

In recognition of his work during 54 visits to India since 1962, Joe was the first non-Indian to receive the Conservation of the Environment Award from the Rotary Clubs and Earthcare Society of India. Last November, during the International Food Technology Conference at Mysore, Joe was elected Hon Fellow of the Indian Association of F S & T and Most Distinguished Alumnus of the Central Food Technological Research Institute.

*Joseph H Hulse is a Past President of IUFoST, Fellow of the International Academy of Food Science and Technology, and Chair of the IUFoST Integrated Food Systems Taskforce. Joseph Hulse is a founding member of IUFoST and his account of IUFoST's formation and information on the activities of the Integrated Food Systems Taskforce are available on the IUFoST website at [www.iufost.org](http://www.iufost.org)* □

**"MORE THAN 90% OF ALL STUDENTS WERE EVENTUALLY EMPLOYED IN FOOD INDUSTRIES. THE PROJECT RAISED SUFFICIENT FUNDS FOR FAO TO SUPPORT THE IFTTC DURING ITS FIRST 8 YEARS."**

## **TAIWAN ASSOCIATION FOR FOOD SCIENCE AND TECHNOLOGY, (TAFST)**

**By Prof Lucy Sun Hwang, TAFST**

### **ORGANISATION AND MEMBERSHIP**

Founded on September 20, 1971, the Chinese Institute of Food

Science and Technology was renamed "Taiwan Association for Food Science and Technology" in January 2003. It is a nonprofit scientific society with the mission and goals of promoting research and development in the field of food science and technology. Members of this society come from industry, academia, government and research institutes. This association has 2,131 members, including 1,044 permanent members (260 with PhD degree and 163 with MS degree), 534 professional members (41 with PhD degree and 190 with MS degree), 457 student members, and 96 corporate members.

The mission and goals of our association are as following:

- To promote research in the field of food science and technology;
- To organize seminars, symposia and conferences;
- To publish newsletters and related journals;
- To participate in international conferences and meetings and to communicate with other food science and technology associations worldwide;
- To make suggestions and recommendations regarding food policies, standards and regulations;
- To communicate food science general knowledge to consumers;

The supreme power of this association is vested in the General Assembly to formulate and to amend the Constitution and to debate principal motions. The Board of Directors shall exercise these powers when the General Assembly is not in session. The officers of the association consist of 21 directors and 7 supervisors who are elected by all members of the association. The numbers of directors and supervisors from industry, government, academia and research institutes are assigned according to the numbers of their members. The President of the association is elected from the Board of Executive Directors. The term of the presidency is two years. All former presidents are Honorary Directors. The association has a Secretary General to manage the daily routines of the association under the direction of the President.

### **COMMITTEES**

In order to promote all the activities of the association, several committees are established. They are the Journal Editing Committee, Publications Committee, Academic Committee, Development Committee, Fund Managing Committee, International Cooperation Committee, and Web Page Managing Committee. The Academic Committee is further divided into six groups: (1) Food Chemistry; (2) Food Microbiology and Biotechnology; (3) Food Processing/Quality Control/Management; (4) Food Analysis/Sensory Evaluation/Safety; (5) Food Composition/Biochemistry/Nutrition; and (6) Food Engineering/Packaging/Physical Properties.

The Society of Awardees is formed by the awardees of the Association, with the following goals and missions:

- To assist the Association in promoting the development of food industry;
- To advance the exchange of research, technical development, and operational management among members;
- To provide experience and knowledge in the factory management and processing technology.

### **AWARDS AND SCHOLARSHIPS**

TAFST recognizes the contribution and the achievement of its members by bestowing the following awards at the Annual Meeting: (1) Award for Outstanding Contribution to the Taiwan Food Industry; (2) Professor Steven Chang's Award for Outstanding Contribution in Food Science and Technology; (3) Award for Outstanding Food Enterpriser; (4) Academic Achievement Award in Food Science and Technology; (5) Management Achievement Award in Food Science and Technology; (6) Technical Achievement Award in Food Science and Technology; (7) Chiang-Hsu Award for Outstanding Young Food Scientist; (8) Ten Tung Award for Patent and Invention; (9) Food Technologist Achievement Award; (10) Extension and Service Achievement Award; (11) New Product Award; (12) Scholarship of Food Science and Technology – (a) research paper competition, (b) competition for new product innovation; (13) Scholarship of Professor Jean May Tsiang Foundation

### **PUBLICATIONS**

Newsletter: published four times a year, providing current events of TAFST and news of industry, government and academia.

Chinese Journal: Taiwan Journal of Agricultural Chemistry and Food Science (6 volumes per year) co-edited and published with Taiwan Agricultural Chemistry Society.

English Journal: Food Science and Agricultural Chemistry (4 volumes per year) co-edited and published with Taiwan Agricultural Chemistry Society.

Annual Meeting Handbook: An annual publication that contains the Annual Meeting program, abstracts of papers presented at the Annual Meeting, TAFST Awards description, eligibilities, nomination procedures, and past Award recipients.

TAFST Membership Directory: This annual listing of all members of TAFST is available only to members.

Symposia Proceedings: TAFST organizes 3 to 4 symposia each year and proceedings are available to participants.

### **ACADEMIC AND SOCIAL ACTIVITIES**

Besides activities that are promoted by the committees, academic and social activities including the annual meeting, academic conferences, seminars, symposia, reception of international scholars, and participation in international conferences by members and corporate members are also the events that are provided to the members.

### **TAFST WEB PAGE**

The TAFST website address is [www.food.org.tw](http://www.food.org.tw) 